

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 7)

FOIL the expressions shown below:

1. $(5x + 3)(-7x + 8)$

$$\begin{aligned} & (5)(-7)x^2 + (5)(8)x + (3)(-7)x + (3)(8) \\ & (-35)x^2 + (40)x + (-21)x + (24) \\ & -35x^2 + 19x + 24 \end{aligned}$$

2. $(-2x - 4)(-7x - 2)$

$$\begin{aligned} & (-2)(-7)x^2 + (-2)(-2)x + (-4)(-7)x + (-4)(-2) \\ & (14)x^2 + (4)x + (28)x + (8) \\ & 14x^2 + 32x + 8 \end{aligned}$$

3. $(5x + 3)(-7x + 4)$

$$\begin{aligned} & (5)(-7)x^2 + (5)(4)x + (3)(-7)x + (3)(4) \\ & (-35)x^2 + (20)x + (-21)x + (12) \\ & -35x^2 - x + 12 \end{aligned}$$

4. $(-4x + 4)(-4x + 9)$

$$\begin{aligned} & (-4)(-4)x^2 + (-4)(9)x + (4)(-4)x + (4)(9) \\ & (16)x^2 + (-36)x + (-16)x + (36) \\ & 16x^2 - 52x + 36 \end{aligned}$$

5. $(-3x - 4)(-6x - 8)$

$$\begin{aligned} & (-3)(-6)x^2 + (-3)(-8)x + (-4)(-6)x + (-4)(-8) \\ & (18)x^2 + (24)x + (24)x + (32) \\ & 18x^2 + 48x + 32 \end{aligned}$$

FOIL the expressions shown below:

6. $(-9x + 4)(7x - 6)$

$$\begin{aligned} &(-9)(7)x^2 + (-9)(-6)x + (4)(7)x + (4)(-6) \\ &(-63)x^2 + (54)x + (28)x + (-24) \\ &-63x^2 + 82x - 24 \end{aligned}$$

7. $(2x - 5)(-2x - 4)$

$$\begin{aligned} &(2)(-2)x^2 + (2)(-4)x + (-5)(-2)x + (-5)(-4) \\ &(-4)x^2 + (-8)x + (10)x + (20) \\ &-4x^2 + 2x + 20 \end{aligned}$$

8. $(-8x + 5)(9x + 8)$

$$\begin{aligned} &(-8)(9)x^2 + (-8)(8)x + (5)(9)x + (5)(8) \\ &(-72)x^2 + (-64)x + (45)x + (40) \\ &-72x^2 - 19x + 40 \end{aligned}$$

9. $(3x + 3)(-2x + 7)$

$$\begin{aligned} &(3)(-2)x^2 + (3)(7)x + (3)(-2)x + (3)(7) \\ &(-6)x^2 + (21)x + (-6)x + (21) \\ &-6x^2 + 15x + 21 \end{aligned}$$

10. $(-7x - 5)(9x - 4)$

$$\begin{aligned} &(-7)(9)x^2 + (-7)(-4)x + (-5)(9)x + (-5)(-4) \\ &(-63)x^2 + (28)x + (-45)x + (20) \\ &-63x^2 - 17x + 20 \end{aligned}$$